



UNITED STATES PATENT AND TRADEMARK OFFICE

cen

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/583,748	08/16/2006	Ryusuke Murayama	MURAYAMA-I PCT	6999
25889	7590	08/30/2007		
WILLIAM COLLARD COLLARD & ROE, P.C. 1077 NORTHERN BOULEVARD ROSLYN, NY 11576			EXAMINER HYEON, HAE M	
			ART UNIT 2839	PAPER NUMBER
			MAIL DATE 08/30/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/583,748

Applicant(s)

MURAYAMA, RYUSUKE

Examiner

Hae M. Hyeon

Art Unit

2839

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 February 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 June 2006 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>6/21/06</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

1. Figures 8-11 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

2. The disclosure is objected to because of the following informalities:
- Paragraph [0009], line 4, "the mail connector" should be -- the male connector --.
 - Paragraph [0031], line 9, "1and" should be -- 1 and --.

Appropriate correction is required.

3. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: **Mating side and to-be-engaged portion.**

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

5. Claims 1-3 are rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential structural cooperative relationships of elements, such omission amounting to a gap between the necessary structural connections. See MPEP § 2172.01. The omitted structural cooperative relationships are: **the mating side** and the contact holding structure.

Claim 1 recites that each contact has a contact portion to be connected to a **mating side**. Since claim 1 does not recite any structural relationship between the mating side and any other element of the connector, it is not what is the mating side. Is the mating side a part of the insulator or holder?

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Fujitsu Denso Ltd. (JP 7-33395 Y2).

A contact holding structure of a connector 20 comprising a plurality of contacts 30 each having a contact portion to be connected to a mating side of an insulator 32 formed with a contact receiving portion 33 receiving therein part of each of said contacts 30, and a holder 34, said contact holding structure characterized in that said part of each contact 30 is formed with a plurality of to-be-engaged portions 31 at different positions in a fitting direction of said connector 20, said insulator 32 is formed with a holder receiving portion 32a continuous with

Art Unit: 2839

said contact receiving portion 33 and adapted to receive therein said holder 34, said holder 34 has an engaging portion 36 and is adapted to be mounted into said holder receiving portion 32a in a direction crossing the fitting direction of said connector 20, said holder 34 is mounted into said holder receiving portion 32a after said part of each contact 30 is mounted in said contact receiving portion 33, so that said engaging portion 36 engages with one of said to-be-engaged portions 31 to thereby fix said part of each contact 30 to said insulator 32, and positions of the contact portions of part of said contacts 30 are caused to differ from positions of the contact portions of the other contacts 30 in the fitting direction of said connector 20.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 2 and 3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fujitsu Denso Ltd.

Claim 2 recites that the part of each contact is further provided with a portion press-fitted into the insulator and claim 3 recites that the plurality of contacts are arranged in the insulator in two rows facing each other with two holders provided in the insulator and the holders engage with the plurality of contacts in the two rows, respectively.

Although, Fujitsu Denso Ltd. does not disclose a press-fitted portion of the contact and two rows of contacts arranged in the insulator with two holders, the method of press-fitting a

contact in an insulator for secure mounting is well known in the art of an electrical connector and making two rows of contacts only deals with duplication of parts. It has been held that mere duplication of the essential working parts of a device involves only routine skill in the art. *St. Regis Paper Co. v. Bemis Co.*, 193 USPQ 8.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify the connector taught by Fujitsu Denso Ltd. such that it would have a press-fitted contact and two rows of contacts because a press-fitted portion of a contact would securely hold the contact within an insulator of the connector and making two rows of contacts only deals with duplication of parts.

10. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Fujitsu Denso Ltd. in view of Bixler et al (US 5,326,286).

Claim 2 recites that the part of each contact is further provided with a portion press-fitted into the insulator.

While Fujitsu Denso Ltd. does not disclose the contact 30 having a press-fitted portion, Bixler discloses a contact 18 having a press-fitted portion 48 that allows the contact to be securely fitted within an insulator 16 by press-fitting.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify the connector taught by Fujitsu Denso Ltd. such that it would have a contact with a press-fitted portion as taught by Bixler because the press-fitted portion would allow the contact to be securely fitted within an insulator of the connector.

11. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Fujitsu Denso Ltd. in view of Endo et al (US 5,120,269).

Art Unit: 2839

Claim 3 recites that the plurality of contacts are arranged in the insulator in two rows facing each other with two holders provided in the insulator and the holders engage with the plurality of contacts in the two rows, respectively.

While Fujitsu Denso Ltd. only discloses one row of contacts with one holder, Endo discloses a connector comprising an insulator A having two rows of contact receiving portions 3 for receiving contacts C and two holders 8 for holding the contacts C within the contact receiving portions 3.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify the connector taught by Fujitsu Denso Ltd. such that it would have two rows of contacts with two holders as taught by Endo because it only deals with duplication of parts depending on the function of a connector.

Conclusion

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. US Patent NO. 3,766,513 by Carre, US Patent No. 4,084,875 by Yamamoto, US Patent No. 5,122,078 by Davis et al. and US Patent No. 5,860,834 by Sugiyama.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hae M. Hyeon whose telephone number is 571-272-2093. The examiner can normally be reached on Mon.-Fri. (8:30-5:30).

Art Unit: 2839

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tulsidas C. Patel can be reached on (571) 272-2098. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Hae M Hyeon
Primary Examiner
Art Unit 2839

hnh

hnh

Hae Moon Hyeon